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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,114	03/31/2004	Haruhiko Horiuchi	009270-0308987	5537

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EXAMINER

NICHOLSON III, LESLIE AUGUST

ART UNIT PAPER NUMBER

3651

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/813,114	Applicant(s) HORIUCHI, HARUHIKO	
	Examiner Leslie A. Nicholson III	Art Unit 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/17/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/31/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/31/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is a first action on the merits of application 10/813114.

Specification

2. The abstract of the disclosure is objected to because the heading should be labeled "ABSTRACT" or "ABSTRACT OF THE DISCLOSURE".

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. **The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided (L9).** The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. **It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. (L8-9)**

Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claim 1,5,7,10, and 12 are objected to because of the following informalities:

The word "potion" is used while it is clear that the intended word to be used is "portion".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4 The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-7 and 10-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1,5,7,10, and 12 recite the limitation "a rear edge side" in line 8,9,1,11, and 7 of the claims, respectively. It is unclear of what object in the claims it is referring to. Proper sentence punctuation including commas would make this clearer.

Claim 4 and 6 recite "a rear edge side" in line 3 and 2-3 of the claim, respectively. There is insufficient antecedent basis for this limitation in these claims.

Claim 5 and 7 recite the limitation "said depression member" in line 5 and line 4 of the claim, respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "said depression member" in line 7 of the claim. There is insufficient antecedent basis for this limitation in the claim. In addition, the claim, as recited in line 8-9, is unclear. It is not clear if the claim indicates that the air is spouted in the direction of the take-out unit or in the direction of the sheets.

Claim 11 recites the limitation "said guide members" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

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Claim 12 recites the limitations "said bundle of sheets" in line 6 of the claim, "said depressed sheets" in line 8 of the claim, and "said take-out unit" in line 9 of the claim. There is insufficient antecedent basis for these limitations in the claim. In addition, the claim recites "taking out a sheet from said bundle of sheets toward which the air is spouted", however line 3 of the claim describes the air being spouted toward a side of the bundle of sheets. The specification describes the air spout spouting air to the front end side in the taking-out direction of the stacked sheets (P12/L6-8), but does not describe taking out a sheet from the bundle of sheets toward which the air is spouted, meaning in the direction of the air-spout source.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1,2,3, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheung USP 6,345,921.

Regarding claim 1, Cheung discloses a sheet take-out apparatus comprising a sheet-feeding member (48), an air spout unit (96,98,100,102), a take-out unit (18), and a depression member (50) on a rear edge side, as best understood by the claim (see ¶5), located behind a central portion of said sheets

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with respect to the taking-out direction of said take-out unit (Fig.3,5 and C4/61-67,C5/1-2).

Regarding claims 2 and 3, Cheung discloses the air spout unit as an air nozzle (96) provided in a vicinity of said take-out unit (Fig.10 and 13), which includes a first (96) and second air nozzle (100) provided on both sides of the sheets placed on said sheet-feeding member (Fig.10).

Regarding claim 10, Cheung discloses discloses guide members (94,94') provided on both sides of the sheet placed on said sheet-feeding member.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung USP 6,345,921 in view of DiNatale USP 6,863,272.

Regarding claim 5, Cheung discloses a sheet take-out apparatus comprising a sheet take-out apparatus comprising a sheet-feeding member (48), an air spout unit (96,98,100,102), a take-out unit (18), but does not expressly disclose an air jet nozzle on a rear edge side located behind a central portion of said sheets with respect to a taking-out direction of said take-out unit, as best understood by the claim (see ¶5).

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DiNatale teaches an air jet nozzle (405) on a rear edge side located behind a central portion of the sheets with respect to a taking-out direction of the take-out unit, as best understood by the claim (see ¶5), for the purpose of facilitating a more effective means of depressing the sheets against the sheet-feeding member on a rear edge side of the sheets in order to prevent the trailing edge of the top sheet from curling up (C6/L31-36).

At the time of invention, it would have been obvious to one having ordinary skill in the art to have used an air jet nozzle on a rear edge side located behind a central portion of the sheets with respect to a taking-out direction of the take-out unit, as taught by DiNatale, in the device of Cheung, rather than use the depression member disclosed by Cheung, for the purpose of facilitating a more effective means of depressing the sheets against the sheet-feeding member on a rear edge side of the sheets in order to prevent the trailing edge of the top sheet from curling up.

- Regarding claim 6, Cheung does not disclose a pointed end of an air jet nozzle provided on a rear edge side that is farther from the take-out unit than the center of the sheets placed on the sheet-feeding member, as best understood by the claim (see ¶5).

DiNatale teaches a pointed end of the air jet nozzle (400) provided on a rear edge side that is farther from the take-out unit than the center of the sheets placed on the sheet-feeding member (Fig.2,3) for the purpose of facilitating a more effective means of depressing the sheets against the sheet-feeding member on a rear edge side of the sheets, as best understood by the claim (see

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¶5), in order to prevent the trailing edge of the top sheet from curling up (C6/L31-36).

At the time of invention, it would have been obvious to one having ordinary skill in the art to have used an air jet nozzle wherein the pointed end of the air jet nozzle is provided on a rear edge side is farther from the take-out unit than the center of the sheets placed on the sheet-feeding member, as taught by DiNatale, in the device of Cheung, for the purpose of facilitating a more effective means of depressing the sheets against the sheet-feeding member on a rear edge side of the sheets in order to prevent the trailing edge of the top sheet from curling up.

10. Claim 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung USP 6,345,921 in view of Mitzel USP 4,324,394.

Cheung discloses all the limitations of the claim (see ¶7 and ¶9), and further discloses a take-out unit to take out a top sheet (C2/L21-24), but does not expressly disclose the take-out unit having a take-out rotor and a reverse rotation rotor.

Mitzel teaches a take-out rotor (105) and a reverse rotation rotor (91) that rotates in reverse with respect to the take-out rotor and returns excessive sheets taken from the sheets to the sheet-feeding member (C3/L66-68), wherein the take-out rotor and reverse rotation rotor each are provided with surfaces in which suction holes (116,108) are defined to suck a sheet from the sheets (C3/L28-29,C3/L35-36) for the purpose of separating paper transferred from a sheet-

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feeding member to a sheet-receiving device or back to the sheet-feeding member (C1/L12-29, C3/L66-68).

At the time of invention, it would have been obvious to one having ordinary skill in the art to have used a take-out unit having a take-out rotor and a reverse rotation rotor where the two rotors each are provided with surfaces in which suction holes are defined, as taught by Mitzel, in the device of Cheung, for the purpose of separating paper transferred from a sheet-feeding member to a sheet-receiving device or back to the sheet-feeding member.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung USP 6,345,921 and Mitzel USP 4,324,394 and in view of Stievenart USP 4,348,019.

Cheung discloses all the limitations of the claims (see ¶10) but does not expressly disclose the surface of the take-out rotor having a larger friction coefficient than that of the reverse rotation rotor.

Stievenart teaches a take-out unit (10) wherein a friction coefficient of the surface of the take-out rotor (12) is larger than that of the surface of a reverse rotation rotor (13) (C4/L40-48, C5/L45-63) for the purpose of advancing a sheet in the direction of feed that come in contact with the higher friction roller and displacing sheets in the opposite direction that come in contact with the lower friction roller (C2/L1-7).

At the time of invention, it would have been obvious to one having ordinary skill in the art to have used a take-out unit having a take-out rotor and a reverse

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rotation rotor where the friction coefficient of the surface of the take-out rotor is larger than that of the surface of the reverse rotation rotor, as taught by Stievenart, in the device of Cheung, for the purpose of advancing a sheet in the direction of feed that come in contact with the higher friction roller and displacing sheets in the opposite direction that come in contact with the lower friction roller.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung USP 6,345,921 and Mitzel USP 4,324,394 in view of Yokota JP 62140948.

Cheung discloses all the limitations of the claims (see ¶11) but does not expressly disclose the device wherein the air spout unit is attached to the guide members.

Yokota teaches an air spout unit (1,2) attached to the guide members (1,2) for the purpose of better securing and stabilizing the air spout unit.

At the time of invention, it would have been obvious to one having ordinary skill in the art to have attached the air spout unit to the guide members, as taught by Yokota, in the device of Cheung, for the purpose of better securing and stabilizing the air spout unit.

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Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie A. Nicholson III whose telephone number is 571-272-5487. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


GENE O. CRAWFORD
PRIMARY EXAMINER

L.N.
July 14, 2005